

METHOD AND APPARATUS FOR CALIBRATING
VOLUMETRIC COMPUTED TOMOGRAPHY
SYSTEMS

ABSTRACT OF THE DISCLOSURE

The present invention provides a method for determining a geometry of a scanning volumetric computed tomographic (CT) system having a rotation axis, a rotational plane, an x-ray source and a detector. The method includes scanning a phantom having a series of spatially separated discrete markers with the scanning volumetric computed tomographic system, wherein the markers are configured on a supporting structure of the phantom so as to permit separate identification of each marker in a collection of projection images. The method further includes locating images of the markers in each projection, using the located marker images to assign marker locations to tracks, and using the assigned tracks, determining a relative alignment between the detector, the source, and the rotation axis of the scanning volumetric computed tomographic system.